

possible explanation is diversion of T cells towards vaccine resulting in reduced control on infectious agents such as HHV-6/7 and their consequent reactivation.¹⁰

Cutaneous adverse effects of Moderna and Pfizer vaccines have been described recently,⁶ but similar reports with Covishield are lacking in literature. We report three adverse events temporally related to Oxford–AstraZeneca COVID-19 vaccine. While reactivation of herpes and pityriasis rosea have been described with COVID-19 vaccination before, erythema nodosum has not been reported previously. As these adverse effects were mild and resolved without sequelae, the general population should feel assured about its safety and should be encouraged to adopt vaccination at the earliest.

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Conflict of interest



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Data are available on request.

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Personal protective equipment use and face acne in health care providers during the COVID-19 pandemic in Romania: A new occupational acne type?

Dear Editor,

During the COVID-19 pandemic, acne was a commonly reported adverse reaction to medical face mask use amongst healthcare providers (HCP).^{1–8}

A cross-sectional, online survey applied to HCP was conducted from 17 December 2020 until 17 February 2021. This study was approved by University's Ethical Committee and conducted according to the principles of the Declaration of Helsinki. The 41-item questionnaire developed using Google Forms, focusing on acne lesions included HCP in various medical centres from Romania. Questions specifically referred to the state of emergency (March–May 2020), when lockdown measures were instituted, and to the following 7–9 months.

Descriptive statistics, within- and between-subject tests and association measures were used for statistical analyses. Microsoft Excel 16 and IBM SPSS version 28 were considered.

We recorded 134 answers, 116 (86.6%) coming from female HCP with 107 (79.9%) being medical doctors; median age was 29 years old. Because different generations may exhibit distinct behaviours, and participants were grouped into generational birth cohorts, with categories provided by Pew Research: Baby Boomers (1946–1964), Generation X (1965–1980), Millennials (1981–1996) and Generation Z (1997–2012).^{9,10}

To analyse the evolution of acne during and after the lockdown, we used an exact McNemar's test which indicated significant differences in the proportion of people with acne between the two time frames, $P < 0.001$. New lesions or acne worsening were reported by 56.0% of subjects during the state of emergency and by 67.5% in the following 7–9 months. This effect

Table 1 Cross-tabulations showing acne worsening in younger generations as time in the pandemic period extended

			Generation				Total
			Baby Boomers	Generation X	Millennials	Generation Z	
Ever having acne lesions	No	Count	3	4	25	2	34
		% within Generation	42.9%	25.0%	25.0%	40.0%	26.6%
	Yes	Count	4	12	75	3	94
		% within Generation	57.1%	75.0%	75.0%	60.0%	73.4%
Acne during lockdown moths (March 2020–May 2020)	No	Count	5	10	42	2	59
		% within Generation	71.4%	62.5%	42.0%	40.0%	46.1%
	Yes	Count	2	6	58	3	69
		% within Generation	28.6%	37.5%	58.0%	60.0%	53.9%
Acne in the following 7–9 months after lockdown	No	Count	5	9	31	1	46
		% within Generation	71.4%	56.3%	31.0%	20.0%	35.9%
	Yes	Count	2	7	69	4	82
		% within Generation	28.6%	43.8%	69.0%	80.0%	64.1%
Total (†)			7	16	100	5	128

†6 respondents did not specify their birthday and were thus ignored in the analysis of acne worsening per generation.

Table 2 Chi-Squared tests between various emotional impacts and acne (during and after the lockdown)

	Acne during lockdown moths (March 2020–May 2020)		Acne in the following 7–9 months after lockdown	
	$\chi^2(4)$	<i>P</i>	$\chi^2(4)$	<i>P</i>
Emotional impact caused by the pandemic	15.760	0.003	5.692	0.223
Emotional impact caused by PPE	11.174	0.025	3.184	0.528
Emotional impact of lesions	70.576	<0.001	75.707	<0.001

becomes more stringent with younger generations (Table 1), to the extent that an association between acne worsening, and generation is observed as a long-term effect, as the period of time in which people were required to wear PPE extended – $\chi^2(3) = 8.308, P = 0.040$.

Common facial areas affected were chin (70.1%), cheeks (41.8%), nose (34.3%) and neck (34.3%). The predictive model used for lesions development is highly suggestive for acne occurring on mask-affected areas. Regions concurrently involved in the same subject were cheeks, nose, chin (15.7% of cases) and cheeks, chin, neck (14.2% of cases). Chi-squared tests were run to determine the association between acne and various emotional impacts for the two-time frames. The results showed that acne lesions had the highest emotional impact, compared with the pandemic itself and PPE usage. (Table 2). An association between lesion excoriation and acne was observed, $\chi^2(4) = 49.113, P < 0.001$ during the lockdown and $\chi^2(4) = 45.030, P < 0.001$ after it. Acne in the context of medical face mask usage is a distinct subtype of acne mechanica. Management should consider irritation and decreased skin barrier function, which may increase the risk of side-effects on treatment.⁶ In contrast to previous studies, we present an in-depth analysis of acne evolution in subjects for the time frames presented. Our model based on frequency-mining algorithms found

that the most frequent co-occurring regions were based on proximity. Limitations of our study include a small cohort, imbalance in genders and generations and absence of clinical evaluation.

HCPs in Romania commonly reported acne lesions in the areas covered by medical face masks, more intensely with the increase in the number of months during which PPE use was required to be permanent.

This subtype of acne should be regarded as an occupational disease. More regulatory efforts are needed to prevent it and limit its impact on affected HCP.

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SARS-CoV-2 mRNA vaccine injection site pseudolymphoma

Dear Editor,

A healthy 68-year-old female presented with an erythematous nodule on the outer aspect of her left arm (Fig. 1a,b). The location of the nodule coincided with the injection site of the second dose of the Pfizer-BioNTech (Pfizer, Inc., New York City, NY, USA) SARS-CoV-2 mRNA vaccine, administered three months before. The nodule was preceded by a pruritic macule which emerged a week after inoculation, and which steadily evolved to the lesion with which the patient presented. The patient had not experienced any side effects related to the administration of the first vaccine dose, which she had received 3 weeks before in the ipsilateral arm. Dermoscopic evaluation of the nodule revealed

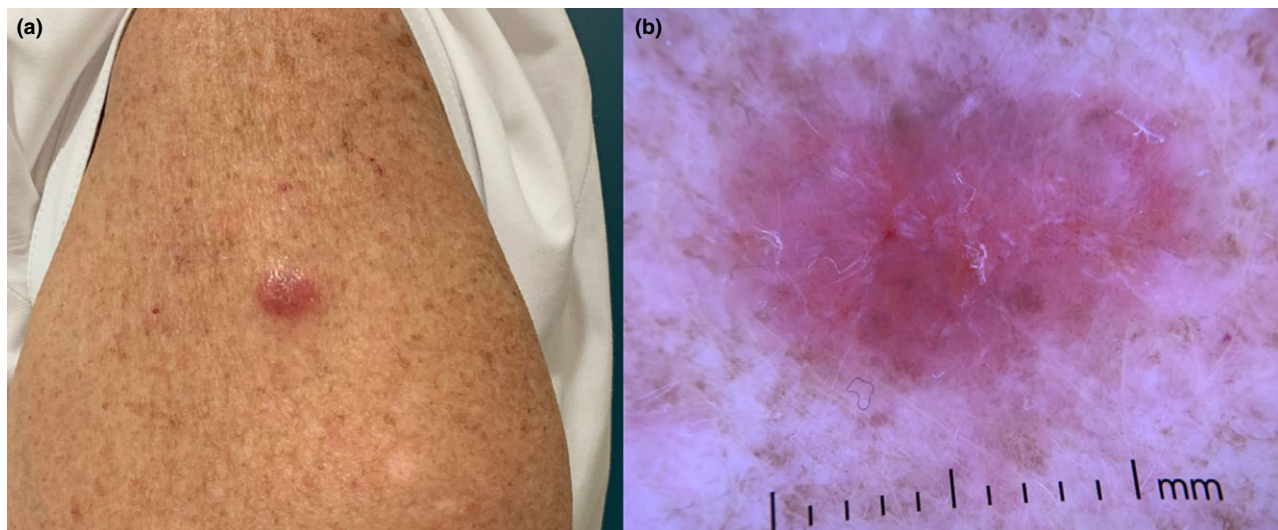


Figure 1 (a) Erythematous nodule on the patient's left arm as observed clinically. (b) Dermoscopic evaluation of the nodule revealed dotted vessels on an erythematous background and shiny white lines.